

Storm Data and Unusual Weather Phenomena - January 2009

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
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INDIANA, Northeast

(IN-Z003) LA PORTE, (IN-Z004) ST. JOSEPH, (IN-Z005) ELKHART, (IN-Z006) LAGRANGE, (IN-Z007) STEUBEN

01/09/09 07:00 EST	0	Heavy Snow
01/10/09 18:00 EST	0	

(IN-Z009) DE KALB

01/09/09 09:00 EST	0	Winter Weather
01/10/09 18:00 EST	0	

A low pressure system tracked east-northeast through the Ohio Valley late January 9th into January 10th. A narrow band of heavy snow fell on the northern fringe of this storm system across northern Indiana, with total snowfall amounts generally ranging between 5 and 10 inches.

(IN-Z003) LA PORTE, (IN-Z004) ST. JOSEPH, (IN-Z005) ELKHART, (IN-Z016) KOSCIUSKO

01/12/09 09:00 EST	0	Heavy Snow
01/13/09 17:00 EST	0	

A clipper system tracked east-southeast across the region late January 12th into January 13th. System snow late on January 12th quickly transitioned into heavy lake-effect snow showers on January 13th as cold air moved in over relatively warm lake waters.

(IN-Z003) LA PORTE, (IN-Z004) ST. JOSEPH

01/14/09 17:00 EST	0	Lake-Effect Snow
01/15/09 08:00 EST	0	

A single lake effect snow band affected portions of northwest Indiana late January 14th into early January 15. An Alberta Clipper tracked through the northern Ohio Valley on January 14th. An arctic airmass filtered in behind this system, with strong northerly flow over the relatively warm lake waters leading to the lake effect snow activity.

(IN-Z018) ALLEN, (IN-Z022) CASS, (IN-Z023) MIAMI, (IN-Z024) WABASH, (IN-Z025) HUNTINGTON, (IN-Z026) WELLS, (IN-Z027) ADAMS, (IN-Z032) GRANT, (IN-Z033) BLACKFORD, (IN-Z034) JAY

01/27/09 15:00 EST	0	Heavy Snow
01/28/09 11:00 EST	0	

A deepening area of low pressure tracked from Tennessee northeast into western Pennsylvania late January 27th into January 28th. A swath of heavy snow fell to the northwest of this track, which affected portions of central and northeast Indiana. Total snow accumulations ranged between 5 and 9 inches.

MICHIGAN, Extreme Southwest

(MI-Z077) BERRIEN, (MI-Z078) CASS, (MI-Z079) ST. JOSEPH, (MI-Z080) BRANCH, (MI-Z081) HILLSDALE

01/09/09 08:00 EST	0	Heavy Snow
01/10/09 18:00 EST	0	

A low pressure system tracked east-northeast through the Ohio Valley late January 9th into January 10th. A narrow band of heavy snow fell on the northern fringe of this storm system across southern Lower Michigan, with total snowfall amounts generally ranging between 8 and 13 inches.

(MI-Z077) BERRIEN, (MI-Z078) CASS

01/12/09 21:00 EST	0	Heavy Snow
01/13/09 17:00 EST	0	

A clipper system tracked east-southeast across the region late January 12th into January 13th. System snow late on January 12th quickly transitioned into heavy lake-effect snow showers on January 13th as cold air moved in over relatively warm lake waters.

(MI-Z077) BERRIEN

01/14/09 22:00 EST	0	Lake-Effect Snow
01/15/09 08:00 EST	0	

Storm Data and Unusual Weather Phenomena - January 2009

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
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A single lake effect snow band affected portions of far southwest Lower Michigan Indiana late January 14th into early January 15. An Alberta Clipper tracked through the northern Ohio Valley on January 14th. An arctic airmass filtered in behind this system, with strong northerly flow over the relatively warm lake waters leading to the lake effect snow activity.

OHIO, Northwest

(OH-Z001) WILLIAMS, (OH-Z002) FULTON, (OH-Z005) HENRY

01/09/09 09:00 EST	0	Heavy Snow
01/10/09 18:00 EST	0	

A low pressure system tracked east-northeast through the Ohio Valley late January 9th into January 10th. A narrow band of heavy snow fell on the northern fringe of this storm system across northwest Ohio, with total snowfall amounts generally ranging between 5 and 9 inches.

(OH-Z004) DEFIANCE, (OH-Z005) HENRY, (OH-Z015) PAULDING, (OH-Z016) PUTNAM, (OH-Z024) VAN WERT, (OH-Z025) ALLEN

01/27/09 16:00 EST	0	Heavy Snow
01/28/09 12:00 EST	0	

A deepening area of low pressure tracked from Tennessee northeast into western Pennsylvania late January 27th into January 28th. A swath of heavy snow fell to the northwest of this track, which affected portions of northwest Ohio. Total snow accumulations ranged between 5 and 9 inches.

Storm Data and Unusual Weather Phenomena - February 2009

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
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INDIANA, Northeast

(IN-Z003) LA PORTE, (IN-Z012) STARKE

02/03/09 16:00 EST	0	Lake-Effect Snow
02/04/09 14:00 EST	0	

A narrow, yet extremely intense, single lake-effect snow band set up across La Porte and Starke counties during the late afternoon hours on February 3rd. This band of snow finally tapered off by the midday hours on February 4th. The intense snow band was nearly stationary over these areas, with snowfall amounts of 1 to 2 feet reported across western portions of La Porte and Starke counties.

(IN-Z003) LA PORTE, (IN-Z004) ST. JOSEPH, (IN-Z005) ELKHART, (IN-Z006) LAGRANGE, (IN-Z007) STEUBEN, (IN-Z008) NOBLE, (IN-Z009) DE KALB, (IN-Z012) STARKE, (IN-Z013) PULASKI, (IN-Z014) MARSHALL, (IN-Z015) FULTON, (IN-Z016) KOSCIUSKO, (IN-Z017) WHITLEY, (IN-Z018) ALLEN, (IN-Z020) WHITE, (IN-Z022) CASS, (IN-Z023) MIAMI, (IN-Z024) WABASH, (IN-Z025) HUNTINGTON, (IN-Z026) WELLS, (IN-Z027) ADAMS, (IN-Z032) GRANT, (IN-Z033) BLACKFORD, (IN-Z034) JAY

02/11/09 17:03 EST	50K	High Wind (MAX 56 kt)
02/12/09 04:06 EST	0	

Deep low pressure tracked across the Great Lakes, dragging along a strong cold front. Behind the front sustained winds were frequently in the 35 to 45 mph range with gusts of between 55 and as high as 70 mph in some areas. This caused scattered to numerous tree and power line damage, along with some structure damage.

MICHIGAN, Extreme Southwest

(MI-Z077) BERRIEN, (MI-Z078) CASS, (MI-Z079) ST. JOSEPH, (MI-Z080) BRANCH, (MI-Z081) HILLSDALE

02/11/09 21:00 EST	0	High Wind (MAX 50 kt)
02/12/09 04:06 EST	0	

Deep low pressure tracked across the Great Lakes, dragging along a strong cold front. Behind the front sustained winds were frequently in the 35 to 45 mph range with gusts of between 55 and as high as 70 mph in some areas. This caused scattered to numerous trees and power line damage along with some structure damage.

(MI-Z078) CASS, (MI-Z079) ST. JOSEPH

02/21/09 23:00 EST	0	Lake-Effect Snow
02/22/09 22:00 EST	0	

Very cold air dove southeast over Lake Michigan Waters, resulting in a period of heavy lake-effect snow during the morning hours of February 22nd. Snow rates of 1-2 inches per hour were common within the band, with the bulk of the snow falling in a 4 hour period just before daybreak.

OHIO, Northwest

(OH-Z001) WILLIAMS, (OH-Z002) FULTON, (OH-Z004) DEFIANCE, (OH-Z005) HENRY, (OH-Z015) PAULDING, (OH-Z016) PUTNAM, (OH-Z024) VAN WERT, (OH-Z025) ALLEN

02/11/09 21:45 EST	0	High Wind (MAX 61 kt)
02/12/09 04:06 EST	0	

Deep low pressure tracked across the Great Lakes, dragging along a strong cold front. Behind the front sustained winds were frequently in the 35 to 45 mph range with gusts of between 55 and as high as 70 mph in some areas. This caused scattered to numerous trees and power line damage along with some structure damage.

Storm Data and Unusual Weather Phenomena - March 2009

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
INDIANA, Northeast				
ADAMS COUNTY --- 1.1 NW STEELE [40.73, -84.84]				
	03/08/09 12:10 EST		0.10M	Lightning
	03/08/09 12:11 EST		0	Source: Newspaper
Firefighters arrived at the residence on East County Road 100 South, east of Monroe to find the front of the house engulfed in flames. Several construction issues made it difficult to fight with the house being a total loss. The damage was estimated at around \$100,000.				
WHITE COUNTY --- REYNOLDS [40.75, -86.87]				
	03/08/09 14:40 EST		0.50K	Thunderstorm Wind (EG 50 kt)
	03/08/09 14:41 EST		0	Source: Public
The public reported the fabric cover to a building being blown off as well as shingle damage to a house.				
WHITE COUNTY --- 0.5 W MONTICELLO [40.75, -86.76]				
	03/08/09 14:48 EST		5K	Thunderstorm Wind (EG 55 kt)
	03/08/09 14:49 EST		0	Source: Emergency Manager
Emergency management officials reported scattered trees and power lines down around Monticello.				
CASS COUNTY --- 2.0 E LOGANSPOUT [40.75, -86.31]				
	03/08/09 15:15 EST		15K	Thunderstorm Wind (EG 55 kt)
	03/08/09 15:16 EST		0	Source: Emergency Manager
Emergency management officials reported the back half of a roof was ripped off a local business. No injuries were reported. Damage is estimated at \$15,000.				
MIAMI COUNTY --- 1.0 W DENVER [40.87, -86.10]				
	03/08/09 15:35 EST	0		Thunderstorm Wind (EG 55 kt)
	03/08/09 15:36 EST	0		Source: Trained Spotter
A trained spotter reported a six inch diameter tree down on State Route 16, just west of Denver.				
MIAMI COUNTY --- 1.1 S NEAD [40.70, -86.13]				
	03/08/09 15:35 EST	0		Thunderstorm Wind (MG 53 kt)
	03/08/09 15:36 EST	0		Source: Emergency Manager
Emergency management officials reported two mobile homes, as well as a block building suffering heavy damage. No injuries were reported. The Grisson Air Force Base reported a 61 mph wind gust.				
MIAMI COUNTY --- PERU [40.75, -86.07]				
	03/08/09 15:35 EST	0		Thunderstorm Wind (EG 55 kt)
	03/08/09 15:36 EST	0		Source: Emergency Manager
Emergency management officials reported a large tree fell onto a residence.				
MIAMI COUNTY --- (GUS)GRISSOM AFB PER [40.65, -86.15]				
	03/08/09 15:37 EST	0		Hail (0.88 in)
	03/08/09 15:38 EST	0		Source: Emergency Manager
Emergency management officials reported nickel size hail at Grissom Air Force Base.				
MIAMI COUNTY --- 3.0 NE RIDGEVIEW [40.80, -86.04]				
	03/08/09 15:37 EST		20K	Thunderstorm Wind (EG 55 kt)
	03/08/09 15:38 EST		0	Source: Emergency Manager
Emergency management officials reported a barn roof was blown off at County Road 250 North and State Route 19. Damage is estimated at \$20,000.				
WABASH COUNTY --- 1.6 NNE LAKETON [41.00, -85.82]				

Storm Data and Unusual Weather Phenomena - March 2009

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
	03/08/09 15:50 EST		65K	Thunderstorm Wind (EG 61 kt)
	03/08/09 15:51 EST		0	Source: NWS Storm Survey

A National Weather Service (NWS) survey team examined the damage at a farm west of North Manchester on State Route 114. Over half of a barn roof was removed from strong winds, likely around 70 mph, entering through a possible door opening. Adjacent buildings, including a house, suffered minor damage, including siding and some shingles. A wooden playground suffered damage from the winds as did some shingles on the residence. Damage is estimated at around \$60,000 for the barn and around \$5,000 for the swing set and roof damage.

HUNTINGTON COUNTY --- 0.7 NNW BIPPUS [40.96, -85.62]

03/08/09 16:05 EST	5K	Thunderstorm Wind (EG 65 kt)
03/08/09 16:06 EST	0	Source: Trained Spotter

Trained spotters reported 2 utility poles being snapped on State Route 105, just north of Bippus.

HUNTINGTON COUNTY --- BIPPUS [40.95, -85.62]

03/08/09 16:05 EST	0	Hail (1.00 in)
03/08/09 16:06 EST	0	Source: Newspaper

A local newspaper reported that quarter size hail was observed in Bippus.

WHITLEY COUNTY --- 0.1 ESE COLUMBIA CITY [41.17, -85.48], 0.3 NE COLUMBIA CITY [41.17, -85.48]

03/08/09 16:15 EST	0.50M	Tornado (EF1, L: 0.23 mi , W: 100 yd)
03/08/09 16:16 EST	0	Source: NWS Storm Survey

The circulation rapidly touched down on the southern outskirts of the Countryside Mobile Home Park and moved northeast through the eastern part of the park. As the circulation intensified, extensive damage occurred to 6 mobile homes which were severely damaged or destroyed. An additional 20 trailers in the immediate area suffered varying amount of damage from ripped skirting to some shifting off blocks. At least one trailer was occupied at the time of the tornado, but luckily no injuries were reported. Damage is estimated at around one half million dollars.

ALLEN COUNTY --- 0.5 W FT WAYNE [41.07, -85.14]

03/08/09 16:30 EST	0	Hail (0.75 in)
03/08/09 16:31 EST	0	Source: Trained Spotter

A trained spotter reported penny size hail at State Route 14 and Interstate 69.

ALLEN COUNTY --- 2.1 NW CEDAR CANYONS [41.25, -85.10]

03/08/09 16:30 EST	1K	Thunderstorm Wind (MG 59 kt)
03/08/09 16:31 EST	0	Source: Amateur Radio

Amateur radio operators reported roof damage to a barn, with shingles torn off a adjacent house. Damage estimated at around \$1000. In addition, the Fort Wayne Indiana ASOS reported a 61 mph wind gust and spotters reported a 68 mph wind gust in Fort Wayne.

Weak instability and moderate shear associated with a northward moving warm front allowed a favorable environment for several small clusters of storms to become severe, mainly producing pockets of damaging winds. One storm exhibiting supercell characteristics began producing more focus damage in Wabash County, with a brief tornado developing on the north side of Columbia City in Whitley County. A few hail reports were also received.

FULTON COUNTY --- 3.1 ENE TALMA [41.17, -86.08], 2.6 N DELONG [41.17, -86.43], 6.7 W GRASS CREEK [40.94, -86.53], 1.4 NNE FULTON [40.97, -86.26], 2.3 W AKRON [41.05, -86.04]

03/10/09 20:28 EST	0.20M	Flood (due to Heavy Rain)
03/12/09 05:00 EST	0	Source: Newspaper

Numerous roads were flooded with standing water ranging from six inches to a few feet in depth. Flooding occurred along the Tippecanoe River which flows through the northern part of the county. Little Yellow Creek, which is fed by the Tippecanoe River, rose dramatically over a 24 hour period as rainfall amounts of 2 to 4 inches were observed. This high water resulted in a portion of County Road 825 East, north of County Road 600 North, being washed out, roughly 12 feet deep. The road gave way under a SUV that was traveling along the road. This SUV made it across, but a second SUV behind this first did not and got wedged in the opening. The father of the female driver attempted to rescue his daughter and 2 grandchildren, but was swept about 50 yards downstream before grabbing onto branch. He stood up in the water on a log for about 20 minutes and was rescued with no serious injuries.

MARSHALL COUNTY --- 1.7 WNW AYR [41.46, -86.11], 2.5 W TEEGARDEN [41.47, -86.43], 1.9 WSW LAKE MAXINKUCKEE [41.19, -86.43], 2.3 ESE TIPPECANOE [41.19, -86.08]

03/10/09 20:28 EST	0.30M	Flood (due to Heavy Rain)
03/12/09 05:00 EST	0	Source: Newspaper

Storm Data and Unusual Weather Phenomena - March 2009

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
The Yellow River came out of its banks, cresting around 14.2 feet. This resulted in streets and some properties in the flood plains of the river to become inundated with water. Some evacuations were necessary as water levels rose quickly. Water entered the Boys and Girls Club in Plymouth, resulting in shutting off both electricity and gas to the building and forcing its closure for a few days.				

NOBLE COUNTY --- 4.6 NE WAKEFIELD VLG [41.52, -85.19], 2.2 W WAWAKA [41.48, -85.52], 2.1 WNW WOLFLAKE [41.34, -85.54], 2.6 WSW AVILLA [41.35, -85.27]

03/10/09 20:28 EST	0.30M	Flood (due to Heavy Rain)
03/12/09 05:00 EST	0	Source: Newspaper

Two to three inches of rain fell over a 24 hour period, resulting in several creeks and rivers exceeding their banks. Flood waters affected portions of Kendallville, as well as much of the eastern two thirds of the county. A section of County Road 200 North near the Noble-DeKalb county line was washed away from the flood water. In addition, Deibele Creek which flows through portions of Kendallville undermined a portion of South State Street, resulting in a 10 foot deep hole forming. Several lakes had higher than normal water levels, with Bixler and Smalley Lakes going outside their banks and causing some flooding to residences and adjacent roads.

STARKE COUNTY --- 4.9 WNW HAMLET [41.40, -86.69], 2.2 SE LENA PARK [41.17, -86.71], 5.5 ENE ORA [41.19, -86.47], 3.1 E OBER [41.27, -86.47]

03/10/09 20:28 CST	1M	Flood (due to Heavy Rain)
03/12/09 05:00 CST	0	Source: Newspaper

Numerous roads were flooded with standing water ranging from six inches to a few feet in depth. The hardest hit areas were generally south of US 30 with at least 10 roads reported closed due to high water. The Kankakee River rose to a record level of 13.72 feet near Davis. Several lakes in the area, including Bass Lake, rose to well above levels and caused areas of flooding to adjacent properties. Damage is estimated at one million dollars.

STUBEN COUNTY --- 1.0 WNW CLEAR LAKE [41.74, -84.85], 1.4 NNE ORLAND [41.75, -85.16], 1.6 ENE HELMER [41.54, -85.14], 2.8 SSE ALVARADO [41.53, -84.82]

03/10/09 20:28 EST	0.50M	Flood (due to Heavy Rain)
03/12/09 05:00 EST	0	Source: Newspaper

Numerous roads were flooded with standing water ranging from six inches to a few feet in depth. At least 3 roads suffered some degree of wash out. These were County Road 950 East north of U.S. 20, County Road 20 North near County Road 100 East and a portion of West Fox Lake Road. Several lakes in the northern part of the county experienced high water levels, with some damage reported as well as sporadic evacuations. A NWS Cooperative observer in Angola reported 4.3 inches of rain over a 4 day period.

WABASH COUNTY --- 0.6 S LIBERTY MILLS [41.02, -85.73], 0.9 W LIBERTY MILLS [41.03, -85.75], 0.7 N LAKETON [40.99, -85.83], 1.1 SSW NORTH MANCHESTER [40.99, -85.77]

03/10/09 20:28 EST	0.15M	Flood (due to Heavy Rain)
03/12/09 05:00 EST	0	Source: Newspaper

The Eel River went well out of its banks as a result of heavy rainfall over a several day period. The river crested just above 14 feet in North Manchester, with numerous roads under water in North Manchester and adjacent areas. No reports of injuries or rescues were noted.

WHITE COUNTY --- 0.6 W NORWAY [40.78, -86.76], 0.5 W NORWAY [40.78, -86.76], 0.4 NNW MONTICELLO [40.76, -86.75], 1.4 E WHITE CO ARPT [40.72, -86.74], 4.4 SSE WHITE CO ARPT [40.66, -86.74], 4.0 S WHITE CO ARPT [40.66, -86.77], 1.0 NNW WHITE CO ARPT [40.73, -86.78], 1.4 SW NORWAY [40.77, -86.77]

03/11/09 11:56 EST	1M	Flash Flood (due to Heavy Rain)
03/12/09 07:45 EST	0	Source: Newspaper

Heavy rainfall which occurred across the Tippecanoe basin resulted in the flood gates being opened at the Norway dam. Peak flows through the gates reached around 26,000 cubic feet per second (cfs), resulting in widespread flooding downstream into the eastern part of Monticello. Evacuations occurred in many areas with numerous residences and businesses suffering water damage. Damage has been estimated to be at least 1 million dollars. There were no reports of injuries or fatalities related to the flooding.

Several systems moved across the area, bringing with them not only some severe weather in spots, but areas of flooding as well. Rainfall amounts through this period averaged between two and four inches in many locations with some areas seeing upwards of six inches. Numerous counties reported high water on roads, with several rivers and lakes going well out of their banks.

OHIO, Northwest

VAN WERT COUNTY --- 0.9 SW VAN WERT [40.86, -84.58]

03/07/09 07:20 EST	0	Hail (0.88 in)
03/07/09 07:21 EST	0	Source: Trained Spotter

Storm Data and Unusual Weather Phenomena - March 2009

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
A trained spotter reported dime to nickle size hail covering the ground in Van Wert.				
PUTNAM COUNTY --- 0.5 W OTTOVILLE [40.93, -84.34]				
	03/07/09 07:36 EST		0	Hail (0.75 in)
	03/07/09 07:37 EST		0	Source: Fire Department/Rescue
The Ottoville Fire Department reported penny size hail covering the ground.				
The area was on the northern fringe of a stationary boundary, with modest elevated instability and shear, and a pocket of cold air. This resulted in an isolated storm developing supercell characteristics, which eventually produced severe hail in Van Wert and Putnam counties.				
DEFIANCE COUNTY --- 0.9 NNE MARK CENTER [41.29, -84.61], 3.3 S NEY [41.33, -84.53]				
	03/08/09 17:04 EST		0.10M	Tornado (EF0, L: 5.06 mi , W: 50 yd)
	03/08/09 17:07 EST		0	Source: NWS Storm Survey
A National Weather Service (NWS) storm survey determined that a tornado initially touched down just east of Mark Center on Williams Center-Cecil Road, where eight utility poles were blown down towards the east with one pole being snapped. Immediately to the northeast of these poles on the south side of Highway 18, a small barn was blown off its foundation, but was left intact with a farm house across the road suffering some minor roof damage. The tornado briefly lifted, but touched down once again on Openlander Road between Lockwood and State Route 18. The front porch on a home was ripped off as well as a television antenna and large tree damaged. A large barn suffered some minor roof damage. As the tornado skipped a few more times, additional trees suffered varying damage, with a few homes suffering shingle or siding damage. The total length along the broken path was roughly 5 miles with a maximum width of only around 50 yards.				
Weak instability and moderate shear associated with a northward moving warm front allowed a favorable environment for a small line of storms to remain severe as it exited northeast Indiana into northwest Ohio. A weaker tornado developed out of one of the storms as it moved through Defiance County.				
PUTNAM COUNTY --- GLANDORF [41.03, -84.08], 4.2 N KALIDA [41.04, -84.17], 2.1 SW MILLER CITY [41.07, -84.15], 1.4 NE GLANDORF [41.05, -84.06]				
	03/10/09 20:38 EST	1	0	Flood (due to Heavy Rain)
	03/12/09 06:00 EST		0	Source: Newspaper

Flood waters from the Blanchard River, near Glandorf, caused a truck to be swept off the road on Road 15, north of Road J. Investigators believe that the driver exited the truck attempting to escape the flood water and was swept away. The body of the 74 year old male was recovered about 900 yards from the truck a few days after flood waters receded.

Direct Fatalities: M74VE

Several systems moved across the area, bringing with them not only some severe weather in spots, but areas of flooding as well. Rainfall amounts through this period averaged between two and four inches in many locations. Numerous counties reported high water on roads, but much of this flooding was in areas that tend to flood easily. At least one fatality occurred as a result of the flood waters when a truck was swept off a road by the Blanchard River in Putnam County, near Glandorf. It appears the driver of the truck attempted to escape and was swept away by the flood waters.

Storm Data and Unusual Weather Phenomena - April 2009

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
MICHIGAN, Extreme Southwest				
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(MI-Z077) BERRIEN				
	04/05/09 22:00 EST		0	Heavy Snow
	04/06/09 08:30 EST		0	

Deep low pressure tracked across southeastern Ohio during the early morning hours of the sixth. Despite temperatures near or just above freezing, a band of moderate to locally heavy snow fell across portions of far southern Lower Michigan. While most amounts were generally in the two to four inch range, a narrow band of intense snowfall occurred across much of Hillsdale County where a wet accumulation of seven to nine inches fell. The snow quickly melted during the daytime hours of the sixth.

Storm Data and Unusual Weather Phenomena - May 2009

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
INDIANA, Northeast				
JAY COUNTY --- 0.5 E DUNKIRK [40.38, -85.21], 2.4 W DUNKIRK [40.38, -85.27], 1.4 W PENNVILLE [40.50, -85.18], 2.4 SW POLING [40.51, -85.10]				
	05/01/09 01:15 EST		0	Flood (due to Heavy Rain)
	05/01/09 07:00 EST		0	Source: Law Enforcement
Law enforcement officials reported portions of State Route 167 north of Dunkirk and County Road 400 closed due to flooding. Water was also reported crossing the road on State Road 1 south of Pennville.				
Thunderstorms persisted over much of southern Blackford and all of Jay counties during the overnight hours of May 1st. Locations in the Dunkirk area reported up to three inches of rain causing water problems on some roads.				
LA PORTE COUNTY --- 0.5 E MICHIGAN CITY [41.72, -86.89]				
	05/13/09 23:00 CST		0	Thunderstorm Wind (EG 55 kt)
	05/13/09 23:01 CST		0	Source: Law Enforcement
Law enforcement officials reported several trees down in both Michigan City and Long Beach, along US 12.				
PULASKI COUNTY --- 0.5 E MEDARYVILLE [41.08, -86.89]				
	05/14/09 00:10 CST		0	Thunderstorm Wind (EG 50 kt)
	05/14/09 00:11 CST		0	Source: Law Enforcement
Law enforcement officials report a few large tree limbs down.				
KOSCIUSKO COUNTY --- 2.7 N MENTONE [41.21, -86.03], 3.0 NNE MENTONE [41.21, -86.02]				
	05/14/09 01:35 EST		5M	Thunderstorm Wind (EG 55 kt)
	05/14/09 01:36 EST		0	Source: Emergency Manager
Emergency management officials reported two livestock barns, containing chickens, suffered damage. One building suffered severe damage with roughly 200,000 chickens having to be relocated. Debris from the barns was thrown up to a half mile northeast of the location, with a barn on 900 West south of 100 North suffering some damage. Damage by the business owners is estimated in excess of five million dollars due to structural damage, costs to move the chickens to other facilities and other expenses.				
KOSCIUSKO COUNTY --- 0.9 SE WINONA LAKE [41.21, -85.84]				
	05/14/09 01:40 EST		0	Thunderstorm Wind (EG 50 kt)
	05/14/09 01:41 EST		0	Source: NWS Employee
An off duty NWS employee reported large tree branches being blown down on the southeast side of Warsaw.				
Several lines of strong to locally severe thunderstorms affected portions of Illinois during the evening hours of May 13th and moved east into western Indiana into the early morning hours of the 14th. While instability was marginal, very strong wind fields were in place with a few of the strongest storms able to bring the strong winds to the surface.				
CASS COUNTY --- 0.5 W LOGANSPOUT [40.75, -86.36], 3.1 S LEASES CORNER [40.82, -86.37], 0.7 SSW METEA [40.86, -86.33], 2.3 W ADAMSBORO [40.78, -86.31]				
	05/15/09 22:45 EST		0	Flash Flood (due to Heavy Rain)
	05/16/09 02:45 EST		0	Source: Emergency Manager
Emergency management officials reported a creek just north of the intersection of State Route 17 and County Road 400 North, going out of its banks, resulting in high flowing water over several roads. A few vehicles were reported to be stalled in the flood waters. Spotters in the area reported two to three inches of rain.				
KOSCIUSKO COUNTY --- 0.8 E SYRACUSE [41.42, -85.73], 1.4 N BEAVER DAM [41.10, -86.00], 1.9 ENE SIDNEY [41.11, -85.72], 0.2 N SYRACUSE WAWASEE ARP [41.42, -85.68]				
	05/16/09 00:00 EST		0.10M	Flash Flood (due to Heavy Rain)
	05/16/09 05:00 EST		0	Source: Emergency Manager
Spotters and local officials reported between two and four inches of rain falling over a 3 to 5 hour period. This resulted in numerous roads becoming flooded with flowing water in several locations, especially south of Warsaw. At least 6 roads were reported closed due to the flowing water. Specific damage amounts weren't available, but are estimated at \$100,000.				

Storm Data and Unusual Weather Phenomena - May 2009

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
STEUBEN COUNTY --- 2.0 NNE NEVADA MILLS [41.76, -85.07], 2.5 NE ORLAND [41.76, -85.14], 1.7 WSW ORLAND [41.72, -85.20], 2.2 ESE ORLAND [41.72, -85.13]				
	05/16/09 00:30 EST		0.25M	Flood (due to Heavy Rain)
	05/16/09 05:00 EST		0	Source: Trained Spotter

Spotters and emergency management officials reported several areas in and around the Lake Pleasant area seeing flooding as the lake went out of its banks in many areas. This was the result of around four inches of rain falling across the area. Exact damage estimates were not available, but are estimated at \$250,000.

A warm front was located across central Indiana during the early evening hours. An area of convection moved in from Illinois along the front and weakened below severe levels. However, the complex began to expand and become a proficient rain producer with several areas seeing flooding rains averaging between 1.5 and 3 inches, with some higher amounts.

LAKE MICHIGAN

MICHIGAN CITY IN TO NEW BUFFALO MI COUNTY --- 0.9 NW MICHIGAN CITY [41.73, -86.91]				
	05/07/09 18:15 EST		0	Marine Thunderstorm Wind (MG 39 kt)
	05/07/09 18:16 EST		0	Source: C-MAN Station

The Great Lakes Environmental Research Laboratory (GLERL) station at Michigan City recorded a 39 knot wind gust.

A weak front stalled out over the area during the afternoon and evening. A weak disturbance moved through, allowing showers and storms to develop. A small area of convection developed over Lake Michigan and produced locally gusty winds.

MICHIGAN CITY IN TO NEW BUFFALO MI COUNTY --- MICHIGAN CITY [41.72, -86.90]				
	05/13/09 23:25 EST		0	Marine Thunderstorm Wind (MG 36 kt)
	05/13/09 23:26 EST		0	Source: C-MAN Station

The Michigan City Great Lakes Environmental Research Laboratory (GLERL) site recorded a 36 knot wind gust.

MICHIGAN CITY IN TO NEW BUFFALO MI COUNTY --- MICHIGAN CITY [41.72, -86.90]				
	05/13/09 23:55 EST		0	Marine Thunderstorm Wind (MG 55 kt)
	05/13/09 23:56 EST		0	Source: C-MAN Station

The Michigan City Great Lakes Environmental Research Laboratory (GLERL) site recorded a sustained wind of 41 knots with a peak gust of 55 knots.

Several lines of strong to locally severe thunderstorms affected portions of Illinois during the evening hours of May 13th and moved east into western Indiana and adjacent portions of far southeastern Lake Michigan during the early morning hours of the 14th. While instability was marginal, very strong wind fields were in place with a few of the strongest storms able to bring the strong winds to the surface.

OHIO, Northwest

ALLEN COUNTY --- 1.3 WNW SPENCERVILLE [40.71, -84.37]				
	05/27/09 16:30 EST		7.50K	Thunderstorm Wind (EG 55 kt)
	05/27/09 16:31 EST		0	Source: Emergency Manager

Emergency management officials reported a portion of the roofing on a barn was removed. In addition, a power pole and several lines were blown down. Damage is estimated at \$7,500.

Weak low pressure tracked across northern Indiana during the afternoon and evening hours. Extensive cloud cover kept most areas from destabilizing except for portions of Van Wert and Allen counties. A small area of thunderstorms developed in Auglaize County and moved into the southeastern part of Van Wert and southwestern part of Allen County. Training of the storms occurred over the area with an isolated wind damage report in the Spencerville area.

Storm Data and Unusual Weather Phenomena - June 2009

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
INDIANA, Northeast				
MIAMI COUNTY --- 0.5 E WAWPECONG [40.58, -86.04]				
	06/01/09 17:15 EST		0.15M	Thunderstorm Wind (EG 60 kt)
	06/01/09 17:16 EST		0	Source: Emergency Manager
Emergency management officials reported a hog barn was destroyed in the 5000 block of State Road 18. None of the hogs in the barn were injured. Damage is estimated at around \$150,000.				
MIAMI COUNTY --- 0.7 SSE NORTH GROVE [40.61, -85.97]				
	06/01/09 17:19 EST		5K	Thunderstorm Wind (EG 55 kt)
	06/01/09 17:20 EST		0	Source: Emergency Manager
Emergency management officials reported a tree down onto a house near the intersection of Park Street and County Road 550 East. Power lines were also down in the area. Damage estimated at \$5,000.				
MIAMI COUNTY --- 2.0 S NORTH GROVE [40.59, -85.98]				
	06/01/09 17:22 EST		0	Thunderstorm Wind (EG 55 kt)
	06/01/09 17:23 EST		0	Source: Emergency Manager
Emergency management officials reported a tree blown down and blocking the road on County Road 500 east, south of County Road 1200 South.				
MIAMI COUNTY --- 2.4 S NORTH GROVE [40.59, -85.98]				
	06/01/09 17:22 EST		10K	Thunderstorm Wind (EG 55 kt)
	06/01/09 17:23 EST		0	Source: Emergency Manager
Emergency management officials reported the roofing blown off farm buildings in the 13000 block of County Road 500 east. Damage is estimated at \$10,000.				
MIAMI COUNTY --- AMBOY [40.60, -85.93]				
	06/01/09 17:22 EST		0	Thunderstorm Wind (EG 55 kt)
	06/01/09 17:23 EST		0	Source: Amateur Radio
Amateur radio operators reported trees and tree limbs down, blocking some local roads in Amboy.				
GRANT COUNTY --- 0.8 ESE SHADY HILLS [40.56, -85.66]				
	06/01/09 17:28 EST		0.10M	Thunderstorm Wind (EG 60 kt)
	06/01/09 17:29 EST		0	Source: Emergency Manager
Emergency management officials reported an old lumber building was blown down by the strong winds in Marion near the intersection of Branson and Swayzee St. In addition, several trees were uprooted onto cars and house and a railroad track crossing arm was broken. Damage is estimated at \$100,000.				
HUNTINGTON COUNTY --- 3.0 NNW LANCASTER [40.79, -85.52]				
	06/01/09 17:52 EST		20K	Thunderstorm Wind (EG 55 kt)
	06/01/09 17:53 EST		0	Source: Emergency Manager
Emergency management officials reported the back side of a barn being blown down with several healthy two to three foot diameter trees also down. Power lines were also blown down in the area. Damage is estimated at \$20,000.				
An east-west frontal boundary stretched across central and northern Indiana with an unstable and moderately sheared environment in place. Numerous thunderstorms developed with several small bowing segments producing wind damage.				
ST. JOSEPH COUNTY --- 2.3 NNW CHAIN O LAKES [41.75, -86.40], 1.9 NNE ROSELAND [41.76, -86.24], 3.3 SSW MISHAWAKA [41.63, -86.20], 2.0 ENE CRUMSTOWN [41.64, -86.38]				
	06/11/09 07:46 EST		0	Flash Flood (due to Heavy Rain)
	06/11/09 12:45 EST		0	Source: Trained Spotter
A lone thunderstorm developed over the northern parts of South Bend and remained nearly stationary. Rainfall amounts averaged between two and three inches, with much of this falling over the span of an hour. A spotter reported 4.23 inches of rain just northwest of town. Numerous roads were flooded in the general area of the heavy rainfall, with a few road closures from standing or flowing water. In addition, local television stations showed pictures of several vehicles in flood waters, some as deep as two to three feet.				

Storm Data and Unusual Weather Phenomena - June 2009

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
An upper level wave interacted with an unstable air mass along a stationary boundary across northern Indiana. Thunderstorms developed across Porter County and slowly drifted into far western Laporte County and weakened. An isolated storm developed over St. Joseph County, and remained nearly stationary causing areas of flash flooding with cars reported stuck in deep flood waters.				
ST. JOSEPH COUNTY --- 0.7 NE LAKEVILLE [41.53, -86.27]				
	06/19/09 03:40 EST		0	Thunderstorm Wind (EG 55 kt)
	06/19/09 03:41 EST		0	Source: Broadcast Media
A South Bend television station reported trees were down onto a house and car at 402 Monroe Street in Lakeville.				
ST. JOSEPH COUNTY --- 1.4 ENE NUTWOOD [41.61, -86.25]				
	06/19/09 03:40 EST		20K	Thunderstorm Wind (EG 60 kt)
	06/19/09 03:41 EST		0	Source: Newspaper
The local newspaper reported numerous trees down with some structural damage east of US 31 as well as south of Kern Road, near the Southlawn Cemetery. A large tree was uprooted, falling onto a house, causing extensive roof damage to one side of the home. At least one vehicle was damaged from a downed tree. Damage is estimated at \$20,000.				
ST. JOSEPH COUNTY --- 0.7 N SOUTH BEND [41.68, -86.25]				
	06/19/09 03:45 EST		0	Thunderstorm Wind (EG 60 kt)
	06/19/09 03:46 EST		0	Source: Broadcast Media
A South Bend television station reported that four large evergreen trees were blown down on Pear Road.				
ELKHART COUNTY --- 0.7 N JAMESTOWN [41.64, -86.02]				
	06/19/09 03:46 EST		0	Thunderstorm Wind (EG 55 kt)
	06/19/09 03:47 EST		0	Source: Trained Spotter
Trained spotters reported numerous tree limbs, as well as one tree, being blown down near Jamestown.				
ELKHART COUNTY --- 2.6 W WATERFORD MILLS [41.55, -85.88]				
	06/19/09 03:50 EST		0	Thunderstorm Wind (EG 60 kt)
	06/19/09 03:51 EST		0	Source: NWS Employee
An off duty NWS employee reported numerous ten to eighteen inch tree limbs down 3 miles southwest of Goshen.				
MARSHALL COUNTY --- BREMEN [41.45, -86.15]				
	06/19/09 03:50 EST		25K	Thunderstorm Wind (EG 55 kt)
	06/19/09 03:51 EST		0	Source: Trained Spotter
Trained spotters reported numerous trees down in Bremen. In addition, a local newspaper reported that the Bremen Ford dealership had several showroom windows blown out with some water damage. A nearby Chevrolet dealership found a hold in the rear window on a delivery van, but no evidence of what caused the damage. Damage is estimated in the area at \$25,000.				
ELKHART COUNTY --- 0.9 NE SOUTH WEST [41.54, -85.94]				
	06/19/09 03:55 EST		5K	Thunderstorm Wind (EG 55 kt)
	06/19/09 03:56 EST		0	Source: Trained Spotter
Trained spotters reported an eight and twelve inch diameter branch blown down. Minor damage was also reported to a porch at a nearby residence.				
ELKHART COUNTY --- NAPPANEE [41.45, -86.00]				
	06/19/09 04:00 EST		0	Thunderstorm Wind (EG 60 kt)
	06/19/09 04:01 EST		0	Source: Broadcast Media
Pictures submitted to a South Bend television station indicated several large tree limbs being blown down in Nappanee.				
KOSCIUSKO COUNTY --- 2.2 WSW REDMOND PARK [41.37, -85.82]				
	06/19/09 04:10 EST		0	Thunderstorm Wind (EG 60 kt)
	06/19/09 04:11 EST		0	Source: NWS Employee
An off duty NWS employee reported numerous trees down southeast of Milford.				

Storm Data and Unusual Weather Phenomena - June 2009

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
NOBLE COUNTY --- COSPERVILLE [41.48, -85.47]				
	06/19/09 04:13 EST		0	Thunderstorm Wind (EG 55 kt)
	06/19/09 04:14 EST		0	Source: County Official
County dispatch reported numerous trees and power lines down in Cosperville.				
KOSCIUSKO COUNTY --- 0.7 N SYRACUSE [41.43, -85.75]				
	06/19/09 04:16 EST		0	Thunderstorm Wind (EG 60 kt)
	06/19/09 04:17 EST		0	Source: NWS Employee
An off duty NWS employee reported numerous trees down throughout Syracuse.				
NOBLE COUNTY --- 0.6 WSW INDIAN VLG [41.37, -85.64]				
	06/19/09 04:20 EST		0	Thunderstorm Wind (EG 55 kt)
	06/19/09 04:21 EST		0	Source: County Official
County dispatch reports trees blown down on State Route 5, south of County Road 100 North.				
NOBLE COUNTY --- 1.2 ESE ROME CITY [41.49, -85.36]				
	06/19/09 04:20 EST		0	Thunderstorm Wind (EG 55 kt)
	06/19/09 04:21 EST		0	Source: County Official
County officials reported a tree down onto a power line in Rome City.				
KOSCIUSKO COUNTY --- 2.2 SE VAWTER PARK [41.38, -85.67]				
	06/19/09 04:21 EST		0	Thunderstorm Wind (EG 65 kt)
	06/19/09 04:22 EST		0	Source: NWS Employee
NWS employees reported four trees uprooted on the south end of Lake Wawasee on Hatchery Road. Wind speeds, estimated at around 75 mph, appear to have locally increased as a result of flowing down the length of the lake.				
NOBLE COUNTY --- 0.9 NW INDIAN VLG [41.38, -85.64]				
	06/19/09 04:23 EST		0	Thunderstorm Wind (EG 60 kt)
	06/19/09 04:24 EST		0	Source: NWS Employee
An off duty NWS employee reported multiple large tree limbs snapped on County Road 200 North between State Route 5 and County Road 1150 West.				
WHITLEY COUNTY --- 0.9 SW COLUMBIA CITY [41.16, -85.49]				
	06/19/09 04:40 EST		0	Thunderstorm Wind (EG 50 kt)
	06/19/09 04:41 EST		0	Source: Emergency Manager
Emergency management officials reported numerous limbs of varying sizes down in the northern part of the county.				
ALLEN COUNTY --- 0.5 E ARCOLA [41.10, -85.29]				
	06/19/09 04:54 EST		10K	Thunderstorm Wind (EG 55 kt)
	06/19/09 04:55 EST		0	Source: Broadcast Media
A Fort Wayne television station reported a semi truck overturned.				
STEBEN COUNTY --- 1.1 ESE JAMESTOWN [41.74, -85.00]				
	06/19/09 05:00 EST		40K	Lightning
	06/19/09 05:00 EST		0	Source: Newspaper
A 32 foot by 50 foot storage facility for Shelton Fireworks on Old US 27 was struck by lightning around 6 am EDT, causing a fire to start. This fire subsequently began causing roughly 1000 boxes of fireworks in the building to ignite, with some of them reaching 100 feet into the air. It took firefighters from 12 departments around 90 minutes to get the fire under control, with the building being a total loss. The building was valued at around \$10,000 with the contents around \$30,000.				
ST. JOSEPH COUNTY --- 0.9 SE CRUMSTOWN [41.62, -86.41]				
	06/19/09 08:07 EST		0	Hail (0.75 in)
	06/19/09 08:08 EST		0	Source: Law Enforcement

Storm Data and Unusual Weather Phenomena - June 2009

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
Law enforcement officials reported penny size hail covering the ground, along with a few shingles blown off a residence.				
A small cluster of thunderstorms developed in eastern Wisconsin and rapidly expanded eastward. A large cold pool developed and forced the convection towards the southeast with portions of northern Indiana experiencing pockets of wind damage.				
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FULTON COUNTY --- 0.7 S TALMA [41.14, -86.13]				
	06/19/09 15:30 EST		0	Hail (4.50 in)
	06/19/09 15:31 EST		0	Source: Broadcast Media
Several reports were received at local television stations of hail ranging from pea size to larger than softballs. The hail fell for up to 20 minutes in some locations.				
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FULTON COUNTY --- 2.1 E RICHLAND CENTER [41.17, -86.24]				
	06/19/09 15:45 EST		0	Hail (0.88 in)
	06/19/09 15:46 EST		0	Source: Amateur Radio
Amateur radio operators reported nickel size hail at US 31 and State Route 110.				
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KOSCIUSKO COUNTY --- MENTONE [41.17, -86.03]				
	06/19/09 15:54 EST		0	Hail (1.00 in)
	06/19/09 15:55 EST		0	Source: Emergency Manager
Emergency management officials reported quarter size hail in Mentone.				
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KOSCIUSKO COUNTY --- MENTONE [41.17, -86.03]				
	06/19/09 15:55 EST		0	Hail (1.25 in)
	06/19/09 15:56 EST		0	Source: Trained Spotter
A trained spotter reported half dollar size hail near Mentone.				
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FULTON COUNTY --- 3.3 NW AKRON [41.08, -86.05]				
	06/19/09 16:00 EST		0	Hail (1.75 in)
	06/19/09 16:01 EST		0	Source: Law Enforcement
Law enforcement officials reported golf ball size hail.				
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KOSCIUSKO COUNTY --- 0.5 W SILVER LAKE [41.07, -85.89]				
	06/19/09 16:18 EST		0	Hail (1.00 in)
	06/19/09 16:19 EST		0	Source: NWS Employee
An off duty NWS employee reported quarter size hail near Silver Lake.				
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WABASH COUNTY --- NORTH MANCHESTER [41.00, -85.77]				
	06/19/09 16:30 EST		0	Hail (1.00 in)
	06/19/09 16:31 EST		0	Source: Emergency Manager
Emergency management officials reported quarter size hail.				
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MARSHALL COUNTY --- 0.9 SE PLYMOUTH [41.34, -86.31]				
	06/19/09 16:36 EST		0	Thunderstorm Wind (EG 55 kt)
	06/19/09 16:37 EST		0	Source: Law Enforcement
Law enforcement officials reported a large tree, as well as power lines down near the intersection of 18th Street and Apple Street in Plymouth.				
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HUNTINGTON COUNTY --- 2.0 ENE BIPPUS [40.96, -85.58]				
	06/19/09 16:56 EST		0	Hail (0.88 in)
	06/19/09 16:57 EST		0	Source: Emergency Manager
Emergency management officials reported nickel size hail.				
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HUNTINGTON COUNTY --- BIPPUS [40.95, -85.62]				

Storm Data and Unusual Weather Phenomena - June 2009

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
	06/19/09 17:07 EST		0	Hail (1.00 in)
	06/19/09 17:08 EST		0	Source: Law Enforcement

Law enforcement officials reported quarter size hail in Bippus.

MARSHALL COUNTY --- 1.5 SSE PLYMOUTH [41.33, -86.31]

06/19/09 17:13 EST	0	Hail (0.88 in)
06/19/09 17:14 EST	0	Source: Trained Spotter

A trained spotter reported nickel size hail.

An outflow boundary from early morning convection became the focus for isolated thunderstorms to develop during the late afternoon and early evening hours. Given mixed layer capes at or above 2000 J/KG and bulk shear exceeding 40 knots, these storms quickly intensified into supercells with one well developed cell going through several cycles of rotation. Several reports of large hail, isolated wind damage and a persistent wall cloud that remained intact through several counties but was never confirmed to have produced a tornado.

KOSCIUSKO COUNTY --- 0.7 N PALESTINE [41.19, -85.95]

06/25/09 22:09 EST	0	Hail (0.75 in)
06/25/09 22:10 EST	0	Source: Trained Spotter

WELLS COUNTY --- LIBERTY CENTER [40.70, -85.28]

06/25/09 22:35 EST	0	Thunderstorm Wind (EG 50 kt)
06/25/09 22:36 EST	0	Source: Law Enforcement

Law enforcement officials reported trees down by wind of around 60 mph in the Liberty Center area.

ALLEN COUNTY --- 0.5 E NEW HAVEN [41.07, -85.01]

06/25/09 23:55 EST	0.10M	Lightning
06/25/09 23:55 EST	0	Source: Newspaper

Lightning appears to have started a detached garage fire in the 1300 block of Baywood drive. This fire spread rapidly to two adjacent houses. The garage was a total loss, with one home suffering severe damage and the other moderate damage. No specific damage estimates were given, but will be assessed at \$100,000.

A weak cold front, combined with some upper level support and moderate instability, resulted in thunderstorms forming across portions of northern Indiana. Severe reports were isolated in nature.

LAKE MICHIGAN

MICHIGAN CITY IN TO NEW BUFFALO MI COUNTY --- MICHIGAN CITY [41.72, -86.90]

06/01/09 04:45 EST	0	Marine Thunderstorm Wind (MG 34 kt)
06/01/09 04:46 EST	0	Source: C-MAN Station

The Michigan City GLERL site recorded a 34 knot wind gust.

A frontal boundary was located across the area and allowed for the development of thunderstorms. One storm strengthened sufficiently to produce a 39 mph wind gust along the shore of Michigan City.

MICHIGAN CITY IN TO NEW BUFFALO MI COUNTY --- 0.7 NW MICHIGAN CITY [41.73, -86.91]

06/19/09 03:15 EST	0	Marine Thunderstorm Wind (MG 40 kt)
06/19/09 03:16 EST	0	Source: C-MAN Station

A 40 knot wind gust was recorded at the GLERL station near Michigan City.

A small cluster of thunderstorms developed in eastern Wisconsin and rapidly expanded eastward. A large cold pool developed and forced the convection towards the southeast across far southeastern Lake Michigan.

NEW BUFFALO TO ST JOSEPH MI COUNTY --- 1.9 W ST. JOSEPH HARBOR [42.10, -86.52]

06/19/09 20:14 EST	0	Marine Thunderstorm Wind (MG 47 kt)
06/19/09 20:15 EST	0	Source: C-MAN Station

Storm Data and Unusual Weather Phenomena - June 2009

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
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The St Joseph GLERL station reported a 47 knot wind gust.

A large area of rain and embedded thunderstorms moved across southern Lake Michigan during the evening hours of the 19th.

MICHIGAN, Extreme Southwest

BRANCH COUNTY --- 2.2 WNW QUINCY [41.94, -84.92]

06/08/09 19:22 EST	0	Hail (1.00 in)
06/08/09 19:23 EST	0	Source: Trained Spotter

HILLSDALE COUNTY --- 2.8 S ALLEN [41.91, -84.77]

06/08/09 19:55 EST	0	Thunderstorm Wind (EG 50 kt)
06/08/09 19:56 EST	0	Source: Emergency Manager

Emergency management officials reported trees down along State Route 49.

The area was in the warm sector of low pressure, which tracked across northern Lower Michigan. A cold front interacted with an unstable atmosphere and moderate shear to produce numerous storms, some of which had brief supercell characteristics. Despite these favorable conditions, only isolated reports of large hail or damaging winds were received.

BERRIEN COUNTY --- 1.0 E EDGEWATER [42.12, -86.45]

06/19/09 02:55 EST	0	Thunderstorm Wind (EG 60 kt)
06/19/09 02:56 EST	0	Source: County Official

County dispatch officials reported numerous trees and power lines down across the county.

CASS COUNTY --- 0.5 W DOWAGIAC [41.98, -86.11]

06/19/09 03:14 EST	0	Thunderstorm Wind (EG 55 kt)
06/19/09 03:15 EST	0	Source: Emergency Manager

A hangar at the Dowagiac airport was severely damaged.

ST. JOSEPH COUNTY --- 0.7 N CONSTANTINE [41.84, -85.67]

06/19/09 03:40 EST	0	Thunderstorm Wind (EG 55 kt)
06/19/09 03:41 EST	0	Source: County Official

County dispatch officials reported trees down in Constantine.

BRANCH COUNTY --- 0.5 W UNION CITY [42.07, -85.14]

06/19/09 04:00 EST	0	Thunderstorm Wind (EG 55 kt)
06/19/09 04:01 EST	0	Source: County Official

County dispatch reported trees down in the area.

A small cluster of thunderstorms developed in eastern Wisconsin and rapidly expanded eastward. A large cold pool developed and forced the convection towards the southeast with portions of extreme southwestern lower Michigan experiencing pockets of wind damage.

OHIO, Northwest

VAN WERT COUNTY --- 1.5 NNW WILLSHIRE OSBORN ARP [40.75, -84.79]

06/01/09 18:23 EST	0	Thunderstorm Wind (EG 60 kt)
06/01/09 18:24 EST	0	Source: Emergency Manager

Emergency management officials reported a tree down north of Wilshire.

VAN WERT COUNTY --- 1.5 SSE VAN WERT [40.85, -84.56]

Storm Data and Unusual Weather Phenomena - June 2009

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
	06/01/09 18:23 EST		10K	Thunderstorm Wind (EG 60 kt)
	06/01/09 18:24 EST		0	Source: Emergency Manager

Emergency management officials reported a power pole down 2 miles southeast of Van Wert.

VAN WERT COUNTY --- 1.7 ENE WETSEL [40.96, -84.40]

06/01/09 18:37 EST	75K	Thunderstorm Wind (EG 65 kt)
06/01/09 18:38 EST	0	Source: Emergency Manager

Emergency management officials surveyed a concentrated area of damage, appearing to be the result of a micro-burst. Within a roughly one mile square area, one barn roof was blown off, three aluminum and one wooden barn door were damaged, several 100 year old trees were blown down by the winds. Also, around 20 structures suffered mainly shingle damage. Damage is estimated at \$75,000.

VAN WERT COUNTY --- 2.8 N WETSEL [40.99, -84.44]

06/01/09 18:39 EST	0	Hail (1.00 in)
06/01/09 18:40 EST	0	Source: Emergency Manager

ALLEN COUNTY --- 0.7 N ELIDA [40.79, -84.20]

06/01/09 18:40 EST	0	Thunderstorm Wind (EG 65 kt)
06/01/09 18:41 EST	0	Source: Trained Spotter

A trained spotter estimated a 65 mph wind gust at the Elida Middle School.

VAN WERT COUNTY --- 1.3 WNW SCOTT [40.99, -84.59]

06/01/09 18:48 EST	0	Hail (0.88 in)
06/01/09 18:49 EST	0	Source: Emergency Manager

ALLEN COUNTY --- 0.9 NE GOMER [40.84, -84.17]

06/01/09 18:50 EST	0	Thunderstorm Wind (MG 65 kt)
06/01/09 18:51 EST	0	Source: Amateur Radio

Amateur radio operators measure a 65 mph wind gust at County Road 235 and US 30.

PUTNAM COUNTY --- 0.5 W COLUMBUS GROVE [40.92, -84.06]

06/01/09 19:07 EST	0	Hail (0.88 in)
06/01/09 19:08 EST	0	Source: Trained Spotter

An east-west frontal boundary stretched across central and northern Indiana with an unstable and moderately sheared environment in place. Numerous thunderstorms developed with several small bowing segments moving out of northern Indiana into northwestern Ohio, producing wind damage as well as some isolated large hail reports.

WILLIAMS COUNTY --- 1.2 ENE MELBERN [41.47, -84.63], 2.0 S LOCK PORT [41.52, -84.38], 2.9 S STRYKER [41.46, -84.43], 1.7 N WILLIAMS CENTER [41.45, -84.62]

06/19/09 05:45 EST	0	Flash Flood (due to Heavy Rain)
06/19/09 07:45 EST	0	Source: Law Enforcement

Law enforcement officials reported several roads with water flowing on them, some a foot deep in areas, as thunderstorms dropped two to four inches of rain over a short period of time. These roads included State Route 576, west of Bryan, US 127 between Byran and West unity and State Route 34, east of Stryker.

DEFIANCE COUNTY --- 5.8 NW SIX CORNERS [41.39, -84.76], 0.7 N HICKSVILLE [41.31, -84.75], 3.1 NW THE BEND [41.31, -84.56], 2.5 W NEY [41.38, -84.57]

06/19/09 06:00 EST	0	Flash Flood (due to Heavy Rain)
06/19/09 07:45 EST	0	Source: Law Enforcement

Law enforcement officials reported flooding across the northern part of the county. Several locations along State Road 249 were affected between Lake Road, west of Farmer, to near US 127, east of Farmer.

A fast moving line of storms moved out of northern Indiana and into northwestern Ohio. While the storms had weakened prior to their arrival in Ohio, training of a few of the storms caused areas of flooding and flash flooding across portions of southern Williams county and northern Defiance county.

Storm Data and Unusual Weather Phenomena - July 2009

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
INDIANA, Northeast				
KOSCIUSKO COUNTY --- ATWOOD [41.27, -85.98]				
	07/16/09 00:10 EST		20K	Lightning
	07/16/09 00:10 EST		0	Source: Newspaper
Lightning struck a tree adjacent to a mobile home in the West Haven Estates, traveled along a tree root and blew a hole in the floor of the home. A woman in the trailer heard a loud band and then observed her couch on fire. She, another adult and 2 children were able to escape unharmed. Damage was estimated at around \$20,000.				
KOSCIUSKO COUNTY --- 0.4 N REDMOND PARK [41.39, -85.78]				
	07/16/09 21:42 EST		0.50K	Thunderstorm Wind (EG 55 kt)
	07/16/09 21:43 EST		0	Source: NWS Employee
A NWS employee reported a 12 foot by 12 foot shed blown onto its side on Mock Road between County Road 300 East and Rookstool Road. Damage is estimated at \$500.				
KOSCIUSKO COUNTY --- 1.1 WNW BARBEE [41.30, -85.74]				
	07/16/09 21:43 EST	0		Thunderstorm Wind (EG 55 kt)
	07/16/09 21:44 EST	0		Source: NWS Employee
A NWS employee reported a healthy tree limb, six to eight inches in diameter down on County Road 450 North, west of Brown Road.				
A warm and unstable environment led to the development of thunderstorms. Moderate wind fields were brought down by a few of the stronger storms, causing isolated wind damage.				
LA PORTE COUNTY --- 2.3 S WATERFORD [41.64, -86.85]				
	07/28/09 13:55 CST	0		Hail (1.50 in)
	07/28/09 13:56 CST	0		Source: Trained Spotter
Trained spotters reported ping pong ball size hail at the intersection of County Road 200 North and Wozniak Road.				
LA PORTE COUNTY --- 0.8 ESE MICHIGAN CITY [41.72, -86.88], 0.4 NNE ROLLING PRAIRIE [41.67, -86.62]				
	07/28/09 14:10 CST	0		Thunderstorm Wind (EG 55 kt)
	07/28/09 14:20 CST	0		Source: Newspaper
Local newspapers reported trees and power lines down from Michigan City into LaPorte and Rolling Prairie. No structure damage was reported.				
ELKHART COUNTY --- 0.3 WSW WAKARUSA [41.53, -86.03]				
	07/28/09 15:07 EST	0		Hail (0.75 in)
	07/28/09 15:10 EST	0		Source: CoCoRaHS
A CoCoRaHS observer reported penny size hail, as well as 1.50 inches of rain in a half hour.				
ELKHART COUNTY --- 0.7 N WAKARUSA [41.54, -86.02]				
	07/28/09 15:14 EST	0		Thunderstorm Wind (EG 50 kt)
	07/28/09 15:15 EST	0		Source: Law Enforcement
Law enforcement officials reported a few trees down in the Wakarusa area.				
ELKHART COUNTY --- GOSHEN [41.58, -85.83]				
	07/28/09 15:44 EST	0		Thunderstorm Wind (EG 50 kt)
	07/28/09 15:45 EST	0		Source: Law Enforcement
Law enforcement officials reported a few trees down in the Goshen area.				
LA PORTE COUNTY --- 1.0 WSW MICHIGAN CITY [41.71, -86.92], 1.9 NNE MICHIGAN CITY ARPT [41.72, -86.80], 0.8 SSW MICHIGAN CITY ARPT [41.69, -86.83], 1.3 E LA PORTE ARPT [41.58, -86.71], 2.0 NE WESTVILLE ARPT [41.60, -86.87], 1.8 W MICHIGAN CITY MUNI [41.68, -86.91]				
	07/28/09 18:19 CST		0.25M	Flash Flood (due to Heavy Rain)
	07/29/09 04:00 CST		0	Source: Broadcast Media

Storm Data and Unusual Weather Phenomena - July 2009

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
<p>Numerous reports were received of flash flooding across many parts of Michigan City. Video footage showed water flowing over many roadways, averaging at least a foot deep, causing some vehicles to stall. At one point, all lanes on US 20 between Johnson road and US 421 were closed due to flowing water over the highway. A CoCoRaHS observer southeast of Trail Creek reported a storm total of 5.64 inches of rain, with an observer on the southwest side of Michigan City reporting 4.10 inches of rain. Rainfall amounts quickly tapered south of Michigan City with locations as far south as the Kingsbury area not even seeing a quarter inch. No reports of injuries or fatalities were noted as a result of the flooding. Damage amounts in terms of washout repairs, basements flooding and other types of damage are estimated at \$250,000.</p>				

A pre-frontal trough moved through during the first part of the day, limiting destabilization in many areas until early afternoon when skies cleared somewhat in northwestern parts of the area. A weak cold front and lake breeze triggered convective development. Overall shear and instability was rather limited, allowing for only pulse type storms. However, the boundaries remained nearly stationary with a period of back building and training thunderstorms, causing flash flooding in some areas.

MICHIGAN, Extreme Southwest

BRANCH COUNTY --- 2.2 E GIRARD [42.03, -84.96], 1.2 WNW SOUTH BUTLER [42.03, -84.90]				
	07/11/09 06:20 EST		0	Thunderstorm Wind (EG 55 kt)
	07/11/09 06:25 EST		0	Source: Emergency Manager

Emergency management officials surveyed a scattered swath of damage across roughly a two and one half mile stretch along E Girard Road.

A cold front moved through during the morning hours of the 11th, with relatively strong wind fields in place. Moderate instability was available, allowing for numerous thunderstorms to develop. A few storms were able to tap the available winds, producing a isolated areas of wind damage.

(MI-Z077) BERRIEN				
	07/26/09 12:00 EST	1	0	Rip Current
	07/26/09 12:00 EST		0	

A west to northwest wind of 10 to 15 knots stirred up waves along the southeast shore of Lake Michigan, resulting in favorable conditions for rip currents to develop. A 57 year old man drowned as a result of being caught in a rip current at the Warren Dunes State park.

Direct Fatalities: M57IW

OHIO, Northwest

FULTON COUNTY --- 0.5 W WAUSEON [41.55, -84.14]				
	07/28/09 18:44 EST		0	Hail (1.00 in)
	07/28/09 18:45 EST		0	Source: Emergency Manager

Emergency management officials reported hail ranging from pea to briefly as large as quarters.

FULTON COUNTY --- 0.9 SE TEDROW [41.59, -84.19]				
	07/28/09 18:44 EST		0	Hail (1.00 in)
	07/28/09 18:45 EST		0	Source: Emergency Manager

FULTON COUNTY --- 0.7 S OTTOKEE [41.59, -84.13]				
	07/28/09 18:47 EST		0	Hail (0.75 in)
	07/28/09 18:48 EST		0	Source: Trained Spotter

Trained spotters reported penny size hail along the Ohio Turnpike, north of Wauseon.

FULTON COUNTY --- 0.7 S OTTOKEE [41.59, -84.13]				
	07/28/09 18:47 EST		0	Thunderstorm Wind (EG 50 kt)
	07/28/09 18:48 EST		0	Source: Trained Spotter

Trained spotters reported three to four trees down along the Ohio turnpike, north of Wauseon.

FULTON COUNTY --- 0.7 N WAUSEON FULTON CO AR [41.63, -84.13]				
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Storm Data and Unusual Weather Phenomena - July 2009

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
	07/28/09 18:58 EST		0	Hail (1.00 in)
	07/28/09 18:59 EST		0	Source: Emergency Manager

A Sheriff deputy reported pea to quarter size hail on County Road L between County Road 13 and State Route 108.

A pre-frontal trough moved through during the first part of the day, limiting destabilization in many areas until early afternoon when skies cleared somewhat in northwestern parts of the area. A weak cold front and lake breeze allowed for a focus for a few lines of storms to develop. Overall shear and instability was rather limited, allowing for only pulse type storms.

A small area of storms survived from northeastern Indiana and moved into Fulton county, briefly pulsing up and producing severe hail and some tree damage.

Storm Data and Unusual Weather Phenomena - August 2009

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
INDIANA, Northeast				
ADAMS COUNTY --- 0.5 E PLEASANT MILLS [40.78, -84.84]				
	08/11/09 15:51 EST		0	Hail (0.75 in)
	08/11/09 15:52 EST		0	Source: Trained Spotter
A trained spotter reported penny size hail for approximately thirty seconds.				
A combination of a cold front and lake breeze drifted southeast across much of northern Indiana, resulting in scattered showers and thunderstorms. Despite strong upper levels winds and favorable instability, weak low level winds and high freezing levels kept most storms below severe levels. An isolated storm produced penny size hail in Adams County with some areas of locally heavy rain and isolated low land flooding.				
LA PORTE COUNTY --- 1.4 E LA PORTE [41.60, -86.69]				
	08/16/09 18:20 CST		0	Lightning
	08/16/09 18:20 CST	1	0	Source: Newspaper
Local newspapers reported a 64 year old man was thrown across his garage when a lightning bolt struck about four feet from where he was standing. He lost consciousness for around five minutes, but awakened and was treated at a local hospital. He was released the next day some lingering speech problems and minor memory lapses.				
Scattered thunderstorms developed across northern Indiana. A 64 year old man was struck by lightning while outside, throwing him across a garage. He escaped with minor injuries.				
KOSCIUSKO COUNTY --- 1.4 ENE ATWOOD [41.28, -85.95], 0.7 SSE MILFORD WEISSER ARPT [41.41, -85.87], 0.8 NNE WAWASEE [41.43, -85.69], 1.9 SSE NORTH WEBSTER [41.30, -85.68]				
	08/17/09 09:45 EST		0	Flash Flood (due to Heavy Rain)
	08/17/09 13:00 EST		0	Source: Trained Spotter
Numerous roads were flooded for several hours as five to as much as ten inches of rain fell across the northern part of the county. The hardest hit areas were from Lake Tippecanoe west to Leesburg and then north into Milford, where reports of seven to ten inches of rain were received. Low spots in these areas had water several feet deep, with water reported to have been flowing over some roads, including portions of State Route 15, between Leesburg and Warsaw. Many of the roads in Leesburg were reported to have water with several vehicles being stranded for a short time. Vehicles were also stranded in portions of Warsaw. The highest rainfall amount was reported by a CoCoRaHS observer southeast of Milford, where 9.90 inches of rain was recorded.				
A stationary front was located from Kansas into the western Great Lakes. South of this front a weak, but persistent flow of deep moisture was flowing into northern Indiana. Several weak disturbances moved through the flow into the area, helping to enhance rainfall amounts and allow for the re-development of thunderstorms. These thunderstorms kept moving over the same areas with rainfall rates of 1 to locally as high as 3 inches per hour. Several of the thunderstorms approached severe limits with wind gusts in the 50 to 55 mph range, but no reports of wind damage or hail were received.				
CASS COUNTY --- 0.5 NNE LOGANSPOUT [40.76, -86.35]				
	08/19/09 18:43 EST		25K	Thunderstorm Wind (EG 60 kt)
	08/19/09 18:44 EST		0	Source: Newspaper
The local newspaper reported a large tree falling onto a garage at a residence on 17th Street. The garage was destroyed from a combination of the tree damage and being shifted off its foundation. A Jeep was trapped in the garage, but no information on the amount of damage was given. Damage to the garage is estimated at \$25,000.				
CASS COUNTY --- 1.3 SW ADAMSBORO [40.77, -86.29], 1.2 SW ADAMSBORO [40.77, -86.29]				
	08/19/09 18:44 EST		75K	Thunderstorm Wind (EG 60 kt)
	08/19/09 18:45 EST		0	Source: NWS Storm Survey
A survey of the area indicated straight line winds, on the order of 70 to possibly 75 mph, caused a small area of scattered damage. A pole barn was destroyed near the intersection of County Roads 150 South and 850 West. Debris from the barn was carried roughly a mile and a half towards the north. A barn and several trees were damaged on the 100 block of County Road 450 East. Damage is estimated at \$75,000.				
MIAMI COUNTY --- 2.6 E MEXICO [40.82, -86.07]				
	08/19/09 19:11 EST		0	Thunderstorm Wind (EG 60 kt)
	08/19/09 19:12 EST		0	Source: Emergency Manager

Emergency management officials reported a one foot diameter tree down, with numerous power outages.

Storm Data and Unusual Weather Phenomena - August 2009

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
WABASH COUNTY --- WABASH [40.80, -85.82]				
	08/19/09 19:32 EST		0	Thunderstorm Wind (EG 52 kt)
	08/19/09 19:33 EST		0	Source: Emergency Manager
Emergency management officials reported winds of at least 60 mph.				
WABASH COUNTY --- IJAMSVILLE [40.97, -85.83]				
	08/19/09 19:39 EST		0	Thunderstorm Wind (EG 55 kt)
	08/19/09 19:40 EST		0	Source: Emergency Manager
Emergency management officials reported a few trees down.				
HUNTINGTON COUNTY --- 0.7 N ANDREWS [40.86, -85.60]				
	08/19/09 19:44 EST		0	Thunderstorm Wind (EG 55 kt)
	08/19/09 19:45 EST		0	Source: Law Enforcement
Law enforcement officials reported a large tree falling onto a vehicle.				
HUNTINGTON COUNTY --- 0.7 S ROANOKE [40.96, -85.37]				
	08/19/09 19:58 EST		0	Thunderstorm Wind (EG 55 kt)
	08/19/09 19:59 EST		0	Source: Law Enforcement
Law enforcement officials reported several small trees down.				
STEUBEN COUNTY --- 1.7 WSW CROOKED LAKE [41.67, -85.06]				
	08/19/09 22:00 EST		15K	Thunderstorm Wind (EG 55 kt)
	08/19/09 22:01 EST		0	Source: Emergency Manager
Emergency management officials reported a large tree was blown down onto a trailer on West Shady Side Road, along Crooked Lake. The trailer was destroyed and a woman in the trailer was not injured.				
A stationary front was located from southern Iowa into central Illinois and Indiana. Moderate to strong instability was in place with steep low level lapse rates and moderate wind fields. A line of severe thunderstorms moved out of Illinois into Indiana, with wind damage being reported on the leading edge, as well as with a few discrete super-cellular type storms behind this line.				

Storm Data and Unusual Weather Phenomena - September 2009

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
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INDIANA, Northeast

(IN-Z003) LA PORTE

09/28/09 05:00 EST	0	High Wind (MAX 50 kt)
09/28/09 17:00 EST	0	

A strong cold front pushed across the region during the early morning hours of September 28th. Showers and a few thunderstorms accompanied the front, but were unable to tap the strong winds aloft. However, strong cold air advection and a tightening gradient allowed a few wind gusts of 55 to 65 mph across portions of LaPorte county.

MICHIGAN, Extreme Southwest

(MI-Z077) BERRIEN

09/28/09 06:00 EST	0	High Wind (MAX 55 kt)
09/28/09 17:00 EST	0	

A strong cold front pushed across the region during the daylight hours of September 28th. Showers and a few thunderstorms accompanied the front, but were unable to tap the strong winds aloft. However, strong cold air advection and a tightening gradient allowed a few wind gusts of 55 to 65 mph across portions of Berrien county.

Storm Data and Unusual Weather Phenomena - October 2009

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
INDIANA, Northeast				
(IN-Z003) LA PORTE				
	10/06/09 23:15 EST		0	High Wind (MAX 59 kt)
	10/07/09 04:00 EST		0	

Strong low pressure moved across lower Michigan producing sustained winds of 35 to 40 mph with a few gusts over 60 mph. A 68 mph wind gust was recorded at the Michigan City Great Lakes Environmental Research Laboratory (GLERL) site.

Storm Data and Unusual Weather Phenomena - December 2009

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
INDIANA, Northeast				

(IN-Z003) LA PORTE, (IN-Z004) ST. JOSEPH, (IN-Z005) ELKHART, (IN-Z006) LAGRANGE, (IN-Z007) STEUBEN, (IN-Z008) NOBLE, (IN-Z009) DE KALB, (IN-Z012) STARKE, (IN-Z013) PULASKI, (IN-Z014) MARSHALL, (IN-Z015) FULTON, (IN-Z016) KOSCIUSKO, (IN-Z017) WHITLEY, (IN-Z018) ALLEN, (IN-Z020) WHITE, (IN-Z022) CASS, (IN-Z023) MIAMI, (IN-Z024) WABASH, (IN-Z025) HUNTINGTON, (IN-Z026) WELLS, (IN-Z027) ADAMS, (IN-Z032) GRANT, (IN-Z033) BLACKFORD, (IN-Z034) JAY

12/09/09 11:00 EST	0	High Wind (MAX 50 kt)
12/09/09 17:00 EST	0	

Strong post-frontal gradient winds developed on December 9th, strongest during the late morning and afternoon as a deep area of low pressure tracked into northern Lower Michigan. Widespread wind gusts between 45 and 60 mph were common across much of northern Indiana.

MICHIGAN, Extreme Southwest

(MI-Z077) BERRIEN, (MI-Z078) CASS, (MI-Z079) ST. JOSEPH, (MI-Z080) BRANCH, (MI-Z081) HILLSDALE

12/09/09 11:00 EST	0	High Wind (MAX 50 kt)
12/09/09 17:00 EST	0	

Strong post-frontal gradient winds developed on December 9th, strongest during the late morning and afternoon as a deep area of low pressure tracked into northern Lower Michigan. Widespread wind gusts between 45 and 60 mph were common across much of southwest Lower Michigan.

(MI-Z077) BERRIEN, (MI-Z078) CASS

12/09/09 15:00 EST	0	Lake-Effect Snow
12/10/09 19:00 EST	0	

Lake effect snow developed behind a strong cold front late December 9th, and continued into much of December 10th. Strong winds created whiteout conditions at times.

OHIO, Northwest

(OH-Z001) WILLIAMS, (OH-Z002) FULTON, (OH-Z004) DEFIANCE, (OH-Z005) HENRY, (OH-Z015) PAULDING, (OH-Z016) PUTNAM, (OH-Z024) VAN WERT, (OH-Z025) ALLEN

12/09/09 11:00 EST	0	High Wind (MAX 50 kt)
12/09/09 17:00 EST	0	

Strong post-frontal gradient winds developed on December 9th, strongest during the late morning and afternoon as a deep area of low pressure tracked into northern Lower Michigan. Widespread wind gusts between 45 and 60 mph were common across much of northwest Ohio.